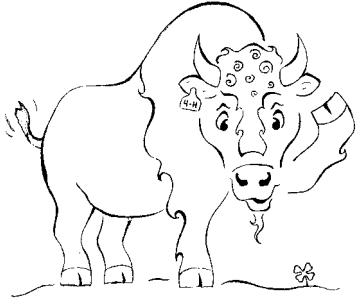


The Newborn Calf



Roll Call:

Use one new word to describe a newborn calf.

Getting off on the right foot

Because the bison is only a semi-domesticated animal, it is very important to always use extreme caution and give them a lot of space. At calving time this rule becomes even more important to remember.

Imagine for a moment that you were given a bag of treasures, and you had to protect these precious treasures from all the possible dangers. How would you do this? What would be your best defense method? Would you seek out potential dangers and attack them? Probably not! But if those dangers threatened you, then you may be more inclined to try and protect yourself.

Ultimate challenge

You are a very important captain on the high sea. I have given you valuable treasure, and asked you to protect it from the pirates. You must get it across the sea safe and sound in order to collect a very special reward.



Are your chances of fending off the pirates better if you are alone, or in a group? Why?

Where is the safest place to keep the treasure? (Remember you don't want the pirates to sneak in and take it from you!)

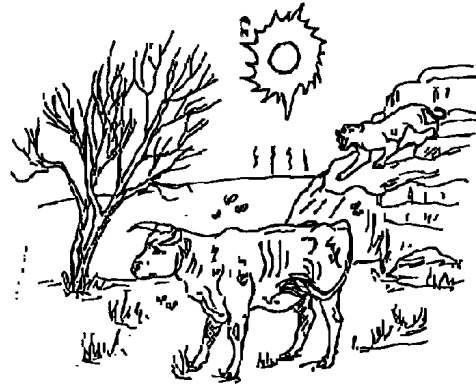
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Now, how do you think that the bison would protect her young? Often the bison calves will be protected by the entire herd. In the wild herds, such as Wood Buffalo National Park, scientists have observed the bison protect their babies by placing them in the middle of the herd. By surrounding them they greatly reduce the chance of them getting caught.

Take a look at these cartoons taken from the book “Cattle & Us Frankly Speaking” by Frank Jacobs.



Terrible, unhealthy life of 'imprisoned' feedlot steer.



'Happy' range cow in a natural 'free and open' environment.

Cartoons taken from the book “Cattle and Us Frankly Speaking” by Frank Jacobs

List at least six things that domestication has provided for the animal.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

These cartoons illustrate how, by domesticating farm animals, we have removed a lot of the elements of danger. It is these dangers that give the bison an inborn instinct of survival. Imagine all of the environmental conditions and predators that previous generations of bison have lived through. For thousands of years, the bison has had to adapt to their environment and protect themselves against predators and the environmental elements. Because of this, the bison has a stronger sense of flight than other domesticated farm animals. Domestic cattle, sheep, horses and pigs have been protected by human care for so long that we sometimes forget that their forefathers were also wild at one time. People have

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only cared for bison in the last century. For this reason, it is important to remember that most bison may have a disposition similar to a wild animal, even though they may have been born on a farm.

What does the newborn need to be healthy and strong?

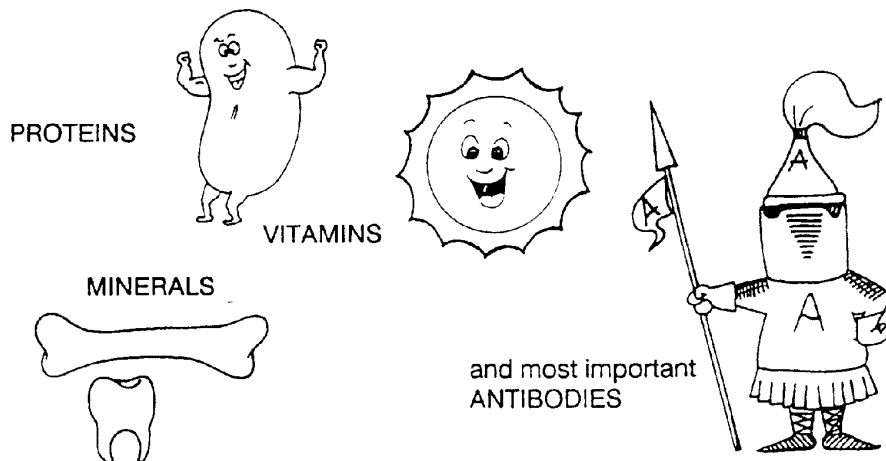
Now that we understand the bison mother's protection instinct, how can we ensure that the calf is healthy and lives a long productive life? The bison baby needs to get lots of good quality colostrum to ensure that it will grow up healthy.

What is colostrum?

Colostrum is the thick, rich yellowish milk that the calf's mother produces. When a calf is born it has no resistance to bacteria and viruses. The first milk, or colostrum, of the mother contains antibodies that will help the new baby to fight off disease. It is very important to remember that the newborn calf should get colostrum as soon as possible after birth.

The calf's system can only absorb all of the good things in the colostrum for the first 4 – 12 hours after birth. After this time, it will lose the ability to gain anything from the colostrum.

There are many things in the colostrum needed by the calf:



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Antibodies are disease fighters. They are the tiny bodies in the blood that get together and attack the disease. The cow gives these to her calf in the milk so that the calf will be able to use them to fight disease until it is old enough to make its own antibodies. At three to four months of age, the calf begins to make its own antibodies.

Colostrum contains 10 to 100 times more vitamin A than milk and three times more vitamin D. It also contains a laxative that helps the calf get rid of the sticky material that is in its intestines at birth.

What else does the baby need?

To protect the baby from disease, the baby should be born in a clean environment. In the wild, bison herds had a pattern of migration. Migration is the pattern of moving from one area to another with the changing seasons.

Can you name some other animals that migrate?

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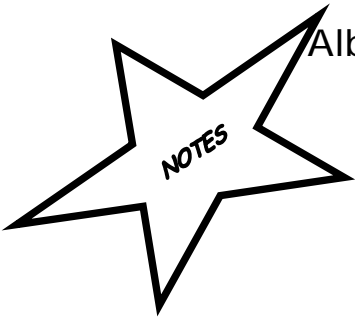
Activity: The first month

Fill in the blanks in the sentences below using the words in the box.
Use each word only once.

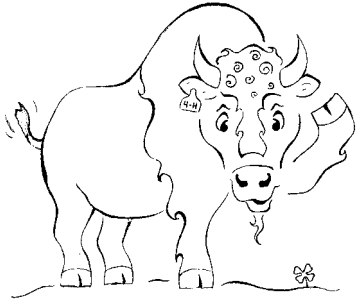


Antibodies Mother Calves Quickly Space
Migrate Growth Vitamins Minerals Environment

1. The best milk for the calf comes from its _____.
2. The most important things the calf receives from the colostrum are the _____.
3. _____ and _____ are also found in the colostrum.
4. It is important to make sure that your newborn calf receives the colostrum as _____ as possible.
5. Feeding the newborn calf properly is important for its future _____.
6. Always remember to give bison a lot of _____, especially at calving time.
7. Your goal is to raise strong, healthy _____.
8. Be sure to provide a fresh, clean _____ for the calf to be born in.
9. In the wild, bison herds will _____ with the change of seasons.



Bison Handling



Roll Call:

List one thing you must remember when working with bison.

Be safety wise (use your head)



When we are startled or scared, our first reaction is to protect ourselves. It is the very same for bison. Charging, head bunting and stomping are the ways that bison have to defend themselves. This may cause serious injury to both the handler and the bison.

As we discussed before the bison is only a semi-domesticated farm animal. Meaning, we have put a fence around them, and in some cases, conditioned them to be used to our farm truck. But they have many, many generations of wild instincts and we will not change them in this lifetime. Therefore we must learn how to handle them with as much ease as possible for the safety of both them and us.

When we are working with bison we must be wise. Always follow these basic rules:

- Never attempt to work with bison alone, and always have an experienced adult giving directions.
- Stay alert.
- Move slowly when working with bison. Any sudden, jerky movements may be associated with a predator move.
- Don't make loud noises or sudden movements.
- Wear appropriate footwear.
- Keep your yard and working areas clean and dry, free from dangers to you or the bison.
- Keep dogs and small children well away. Each may be seen as a predator and it is better to be safe than sorry.

**Don't cross this field unless you can do it in 9.9 seconds.
The Bull can do it in 10!**

Understanding bison behaviour

Understanding bison behaviour will make it easier for you to work with your bison. The following concepts will make handling these animals a lot easier.

- Understanding basic prey animal behaviour and motivations
- Understanding the bison flight zone

Remember the exercise that you did in the Newborn chapter of this level. At that time you experienced a mild form of what it would be like to have a predator in pursuit of you. Did you have an opportunity to watch the film on 'Wolf Predation'?

Explain what traits you feel the bison exhibits that would be the result of being a wild animal.

In the eyes of the bison, you, your dog, or any other person may be seen as a predator. Prey animals are more at ease when they know where and what their potential attacker is doing.

Bison are social animals. They like to live and move in groups. Therefore, it is always easier to move and work with bison when they can be with or near others.

Bison like to follow the leader. If you can get the first animal to move through a gate or chute, the others will follow. That is why most chutes are designed to hold at least three animals in a row. Animals will move much more easily when they can follow each other.

Like cattle, bison will stop if they seem to be approaching a dead end or a sharp turn. For this reason most chutes are curved rather than straight. Then the bison can always see part of the animal ahead of them. Don't frustrate them by forcing them into a chute before they can see where they are going. This may just cause the animal to become immobilized with fear.

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Dr. Temple Grandin, a well known animal behaviourist, along with Jennifer L. Lanier have conducted extensive research on how to calm the American bison during routine handling.

The following chart explains possible causes for balking, and the solutions that should be used to alleviate the problems. In level three you will have a chance to learn more about their 'training' concept. This does not involve taming the bison, but rather teaching them not to fear their surroundings through the use of food. If you have ever been rewarded by someone making you a special batch of your favourite cookies, or baking a cake for your birthday, you will understand why food can be an effective reward that will calm the stress level associated with handling facilities.

Troubleshooting Balking

Cause	Example	Solution
Bison see something	Jacket on a post Shadows Reflections, shining metal, water Dangling chains, rope Vehicles nearby People Dogs Flapping objects	Remove it Add light, solid sides, work at a different time of day Cover it up Dry it Tape it up Move them Hide, don't move Put them in the truck Remove them
Bison can't see	Entering a dark area Can't find the exit	Add light Jiggle door, add light
You	Behaving like a super predator	Put your arms down Get off the catwalk Stop staring, Stand still Take a break, Move away Move Slooooooowly
Wrong Group Site	Single bison Over crowded	Add herd mates - three bison minimum Open up the area Work fewer animals

The flight zone

The flight zone is simply the distance a threat must be away from animal before it will begin to move away from the threat. For instance, if you saw an angry mother bear coming up the trail from quite a distance, how close would you let her come before you moved out of her way?!!

This would be your flight zone. Now, obviously some of us would move more quickly than others; well this is the same as the bison will respond. Some will feel more comfortable than others. The flight zone will also vary from herd to herd and in different situations. Therefore you need to be able to read the herd.

If you increase the pressure on them to move by coming into their flight zone, then you can get them to move. However, if you put on too much pressure you may cause them to panic. Similarly, if that mother bear began to run towards you it may cause panic. This means it is important to understand where the flight zone is, and stay at the edge of it. If you have too little pressure, you won't be going anywhere. If you have too much pressure, you might be left in the dust!





Activity

Fall is here!
Time to work
the bison herd
Can you work
your way through
the day safely?

STAFF It's time to move the bison herd. Dad's waiting.

No time to change!

Take a few minutes to put on proper shoes & clothing.

This one heifer won't go, she is not following the rest.

Make sure she can see the others.

She is only small just jump out & chase her on foot.

You know you can not force them until they are in.

You have the herd heading in the right direction but...

If you start chasing them you can get done faster.

A few bison have split off from the others.

Balance... Put out feed as incentive.

send your cattle dog after them, Junior can step them!

You have a rugged modified squeeze, but if you had a second one you could finish early.

Just borrow the neighbor's old cow.

have patience! safety is more important than trying to hurry!

When it's been a long day, I'll just lay here by the corral & rest.

I'll just close my eyes & rest for a few minutes.

ND, Stay Alert you are alone!

You really only need the one heifer.

just sort her off by herself.

Bison work best in small groups of 6 to 8.

Finished!
Time to BBQ the Bison Burgers!

Transportation

Transporting animals can be a stressful experience. There are a few things you should know before you transport animals to a new location. Consider the following:

Preparation – having your animals in and ready to go is a good plan, but it is important not to forget that they must be well fed and watered before making a trip. Sometimes putting electrolytes or other bicarbonate/sugar products in the water will help to reduce the stress experienced in transport.

Loading/unloading – The area should be safe for the animal to enter the vehicle. It is best if the door that the animals enter the truck through is wide enough to fit at least two at a time, rather than single file.

Transport unit – The truck should be clean and free from past manure or old hay, and fresh bedding is advisable for long trips. This will help to improve the footing, absorb urine, and lessen the shock from the road.

Trailer mates – It is very important to carefully plan who shares space with one another. You should always avoid mixing bison of different ages, sizes and sexes. One exception would be the bison cow with her calf, or even a second calf room permitting. Dehorned mature bulls out of breeding season are probably not a big problem, however if possible this situation is best avoided altogether.

Space – The Department of Transportation has weight restrictions for our province, however this is in place to protect the road not the bison, and should be used as an upper limit not a guideline. It is not worth it to overcrowd the bison, all you do is risk injury.

Mystery word



There is a five-letter Mystery Word hidden in the diagram. Can you find it in four minutes or less?

Mystery Word _ _ _ _ _

X	K	P	I	J	G
B	B	M	O	N	I
C	T	Q	D	S	I
I	N	M	O	U	F
M	O	I	P	L	N
F	I	N	F	S	T

Clues:

My first letter is surrounded by eight consonants.

My second letter is in every row.

My third letter appears twice in one of the columns.

My fourth letter appears three times, always one square to the right of the same letter.

My fifth letter occurs four times.

How do we identify our bison?

In 1997 the Canadian Bison Association introduced a new Permanent Animal Identification System. This system gave producers the option of using the new permanent I.D. Dangle Tag System as either a replacement, or a second means of I.D. to coincide with the Agriculture Canada Health of Animals metal tags.

These tags have the “Canadian Bison Official I.D.” stamped on the back of the tag to ensure authenticity.

This tag was used in 1997 to explain how the tags would work. The following is a segment of that release.



In the sample the letters NLM are the herd letters and A is for the province – in this case Alberta plus the numerical numbers for the year of birth of the animal. Below the herd letters and in larger print is the producers chosen identification number (you can use up to 3 digits) for that animal plus the alphabetical letter for the year of birth in smaller print in the lower left hand corner. If you do not know the year of birth (for mature animals) this part will be filled with a hyphen (-).

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Another form of visual identification is the use of a brand. A few producers in Alberta use a brand to readily identify their animals. Although the brand is not officially registered, the producer may decide that it is worth the extra time and stress.

It is recommended that producers brand on the shoulders of the bison. This will cause the least amount of damage to the hide, however some producers prefer to brand on the hip as the shoulder has too much hair to clearly see the brand. A small horse brand is most commonly used. A freeze brand can be administered with the use of liquid nitrogen, which is perceived to be the least painful of all the branding techniques.

Horn or dehorn...that is the question?

What is dehorning? Dehorning is simply removing the horns from an animal. Some bison producers dehorn their animals because

- Bison with horns can be dangerous to themselves and other bison
- Bison with horns can bruise carcasses
- Aggressive animals use their horns to push others around
- Bison with horns need more space at the feed bunk and water trough
- Bison with horns can be dangerous

The horns are a natural part of the bison. The early people used the horns for a tremendous amount of things. They were used for everything from carrying water to carrying fire ambers, but is there a need for them now? There is no right or wrong answer to this question.

Can you think of three reasons to keep the horns and three reasons to dehorn?

Horns

Dehorn

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One side will see the aesthetic value, or the value of the appearance the horn has. While on the other side, you will see an increase in production of dehorned bison. There are less injuries likely to occur with dehorned animals. Dehorned bison have been documented to fight less, share space better and they don't hurt themselves or each other near as much!

It is easiest for both the animal and the bison producer if you dehorn before the calf reaches two months of age because

- The calf is easier to control
- It is less stressful for the calf
- The wound heals quicker
- There is only a small amount of blood flow to the horn area at this age.

In level two we will discuss in more detail the methods used for dehorning.

You're on a search!



On a separate piece of paper, using an old issue of either "The Tracker" or "Smoke Signals" make a collage of bison pictures that you find in the magazine. Count the number of bison with horns, and the number that are dehorned.

